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SEQUENCE LISTING

<110> Tryggvason, Karl
 Salo, Sirpa

<120> Use of antibodies to the gamma 2 chain of laminin 5 to inhibit tumor growth and metastasis

<130> 02-1147-PCT2

<150> 60/523,895

<151> 2003-11-20

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<170> PatentIn version 3.3

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 Gln Val Asp Asn Arg Lys Ala Glu Ala Glu Glu Ala Met Lys Arg Leu
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ccc gca gcc cgg gcc acc tcc agg agg gaa gtc tgt gat tgc aat ggg Pro Ala Ala Arg Ala Thr Ser Arg Arg Glu Val Cys Asp Cys Asn Gly 20 25 30	213
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aat gga ttc cgc tgc ctc aac tgc aat gac aac act gat ggc att cac Asn Gly Phe Arg Cys Leu Asn Cys Asn Asp Asn Thr Asp Gly Ile His 50 55 60	309
tgc gag aag tgc aag aat ggc ttt tac cgg cac aga gaa agg gac cgc Cys Glu Lys Cys Lys Asn Gly Phe Tyr Arg His Arg Glu Arg Asp Arg 65 70 75 80	357
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gac aac tct gga cgg tgc agc tgt aaa cca ggt gtg aca gga gcc aga Asp Asn Ser Gly Arg Cys Ser Cys Lys Pro Gly Val Thr Gly Ala Arg 100 105 110	453
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acc caa gac cag aga ctg cta gac tcc aag tgt gac tgt gac cca gct Thr Gln Asp Gln Arg Leu Leu Asp Ser Lys Cys Asp Cys Asp Pro Ala 130 135 140	549
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Tyr Arg Val Asp Arg Gly Gly Arg His Pro Ser Ala His Asp Val Ile	
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Leu Glu Gly Ala Gly Leu Arg Ile Thr Ala Pro Leu Met Pro Leu Gly	
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Lys Thr Leu Pro Cys Gly Leu Thr Lys Thr Tyr Thr Phe Arg Leu Asn	
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Pro Val Gly Tyr Lys Gly Gln Phe Cys Gln Asp Cys Ala Ser Gly Tyr	
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Lys Arg Asp Ser Ala Arg Leu Gly Pro Phe Gly Thr Cys Ile Pro Cys	
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Asn Cys Gln Gly Gly Gly Ala Cys Asp Pro Asp Thr Gly Asp Cys Tyr	
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Ser Gly Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly	
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Phe Tyr Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys	
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His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val	
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Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys	
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Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg	
500 505 510	
cct tgt cag ccc tgt caa tgc aac agc aat gtg gac ccc agt gcc tct	1701

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Thr	Ala	Gly	Ile	Tyr	Cys	Asp	Gln	Cys	Lys	Ala	Gly	Tyr	Phe	Gly	Asp		
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Gln	Gln	Leu	Gln	Arg	Met	Glu	Ala	Leu	Ile	Ser	Lys	Ala	Gln	Gly	Gly		
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gat	gga	gta	gta	cct	gat	aca	gag	ctg	gaa	ggc	agg	atg	cag	cag	gct	2085	
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Glu	Gln	Ala	Leu	Gln	Asp	Ile	Leu	Arg	Asp	Ala	Gln	Ile	Ser	Glu	Gly		
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Ala	Ser	Arg	Ser	Leu	Gly	Leu	Gln	Leu	Ala	Lys	Val	Arg	Ser	Gln	Glu		
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Val	Arg	Ala	Leu	Gly	Ser	Gln	Tyr	Gln	Asn	Arg	Val	Arg	Asp	Thr	His		
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agg	ctc	atc	act	cag	atg	cag	ctg	agc	ctg	gca	gaa	agt	gaa	gct	tcc	2325	
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Gly	Phe	Lys	Ser	Leu	Ala	Gln	Glu	Ala	Thr	Arg	Leu	Ala	Glu	Ser	His		
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Val	Glu	Ser	Ala	Ser	Asn	Met	Glu	Gln	Leu	Thr	Arg	Glu	Thr	Glu	Asp		
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Thr	Asn	Met	Asp	Ala	Val	Gln	Met	Val	Ile	Thr	Glu	Ala	Gln	Lys	
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Leu	Asn	Thr	Leu	Asp	Gly	Leu	Leu	His	Leu	Met	Gly	Met			
1100						1105					1110				
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Lys	Ser	Arg	Gln	Cys	Ile	Phe	Asp	Arg	Glu	Leu	His	Arg	Gln	Thr	Gly
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Cys Glu Lys Cys Lys	Asn Gly Phe Tyr Arg	His Arg Glu Arg Asp Arg
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Asp Asn Ser	Gly Arg Cys Ser Cys	Lys Pro Gly Val Thr Gly Ala Arg
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Cys Asp Arg	Cys Leu Pro Gly	Phe His Met Leu Thr Asp Ala Gly Cys
115	120	125
Thr Gln Asp	Gln Arg Leu Leu	Asp Ser Lys Cys Asp Cys Asp Pro Ala
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Gly Ile Ala	Gly Pro Cys Asp	Ala Gly Arg Cys Val Cys Lys Pro Ala
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Val Thr Gly	Glu Arg Cys Asp	Arg Cys Arg Ser Gly Tyr Tyr Asn Leu
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Asp Gly Gly	Asn Pro Glu Gly	Cys Thr Gln Cys Phe Cys Tyr Gly His
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Ser Ala Ser	Cys Arg Ser Ser	Ala Glu Tyr Ser Val His Lys Ile Thr
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Ser Thr Phe	His Gln Asp Val	Asp Gly Trp Lys Ala Val Gln Arg Asn
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Gly Ser Pro	Ala Lys Leu Gln	Trp Ser Gln Arg His Gln Asp Val Phe
225	230	235
Ser Ser Ala	Gln Arg Leu Asp	Pro Val Tyr Phe Val Ala Pro Ala Lys
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Phe Leu Gly	Asn Gln Gln Val	Ser Tyr Gly Gln Ser Leu Ser Phe Asp
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Tyr Arg Val	Asp Arg Gly Gly	Arg His Pro Ser Ala His Asp Val Ile
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Glu His Pro Ser Asn Asn Trp Ser Pro Gln Leu Ser Tyr Phe Glu Tyr
325 330 335

Arg Arg Leu Leu Arg Asn Leu Thr Ala Leu Arg Ile Arg Ala Thr Tyr
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Gly Glu Tyr Ser Thr Gly Tyr Ile Asp Asn Val Thr Leu Ile Ser Ala
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370 375 380

Pro Val Gly Tyr Lys Gly Gln Phe Cys Gln Asp Cys Ala Ser Gly Tyr
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Ser Gly Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly
435 440 445

Phe Tyr Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys
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His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val
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Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys
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Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg
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Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser
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Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn
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Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp
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Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn Cys Asn

565

570

575

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Gln Gln Leu Gln Arg Met Glu Ala Leu Ile Ser Lys Ala Gln Gly Gly
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675 680 685

Asn Ser Tyr Gln Ser Arg Leu Asp Asp Leu Lys Met Thr Val Glu Arg
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725 730 735

Leu Gly Asn Thr Asn Ile Pro Ala Ser Asp His Tyr Val Gly Pro Asn
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Gly Phe Lys Ser Leu Ala Gln Glu Ala Thr Arg Leu Ala Glu Ser His
755 760 765

Val Glu Ser Ala Ser Asn Met Glu Gln Leu Thr Arg Glu Thr Glu Asp
770 775 780

Tyr Ser Lys Gln Ala Leu Ser Leu Val Arg Lys Ala Leu His Glu Gly
785 790 795 800

Val Gly Ser Gly Ser Gly Ser Pro Asp Gly Ala Val Val Gln Gly Leu
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Val Glu Lys Leu Glu Lys Thr Lys Ser Leu Ala Gln Gln Leu Thr Arg
820 825 830

Glu Ala Thr Gln Ala Glu Ile Glu Ala Asp Arg Ser Tyr Gln His Ser
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 Leu Arg Leu Leu Asp Ser Val Ser Pro Leu Gln Gly Val Ser Asp Gln
 850 855 860
 Ser Phe Gln Val Glu Glu Ala Lys Arg Ile Lys Gln Lys Ala Asp Ser
 865 870 875 880
 Leu Ser Ser Leu Val Thr Arg His Met Asp Glu Phe Lys Arg Thr Gln
 885 890 895
 Lys Asn Leu Gly Asn Trp Lys Glu Glu Ala Gln Gln Leu Leu Gln Asn
 900 905 910
 Gly Lys Ser Gly Arg Glu Lys Ser Asp Gln Leu Leu Ser Arg Ala Asn
 915 920 925
 Leu Ala Lys Ser Arg Ala Gln Glu Ala Leu Ser Met Gly Asn Ala Thr
 930 935 940
 Phe Tyr Glu Val Glu Ser Ile Leu Lys Asn Leu Arg Glu Phe Asp Leu
 945 950 955 960
 Gln Val Asp Asn Arg Lys Ala Glu Ala Glu Glu Ala Met Lys Arg Leu
 965 970 975
 Ser Tyr Ile Ser Gln Lys Val Ser Asp Ala Ser Asp Lys Thr Gln Gln
 980 985 990
 Ala Glu Arg Ala Leu Gly Ser Ala Ala Ala Asp Ala Gln Arg Ala Lys
 995 1000 1005
 Asn Gly Ala Gly Glu Ala Leu Glu Ile Ser Ser Glu Ile Glu Gln
 1010 1015 1020
 Glu Ile Gly Ser Leu Asn Leu Glu Ala Asn Val Thr Ala Asp Gly
 1025 1030 1035
 Ala Leu Ala Met Glu Lys Gly Leu Ala Ser Leu Lys Ser Glu Met
 1040 1045 1050
 Arg Glu Val Glu Gly Glu Leu Glu Arg Lys Glu Leu Glu Phe Asp
 1055 1060 1065
 Thr Asn Met Asp Ala Val Gln Met Val Ile Thr Glu Ala Gln Lys
 1070 1075 1080
 Val Asp Thr Arg Ala Lys Asn Ala Gly Val Thr Ile Gln Asp Thr

1085

1090

1095

Leu Asn Thr Leu Asp Gly Leu Leu His Leu Met Gly Met
 1100 1105 1110

<210> 5
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 5

Cys Ile Cys Pro Val Gly Tyr Lys Gly Gln Phe Cys Gln Asp Cys Ala
 1 5 10 15

Ser Gly Tyr Lys Arg Asp Ser Ala Arg Leu Gly Pro Phe Gly Thr Cys
 20 25 30

Ile Pro Cys Asn Cys Gln Gly Gly Gly Ala Cys Asp Pro Asp Thr Gly
 35 40 45

Asp Cys Tyr Ser Gly Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys
 50 55 60

Pro Ile Gly Phe Tyr Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro
 65 70 75 80

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 85 90 95

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
 100 105 110

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 115 120 125

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 130 135 140

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 145 150 155 160

Ile His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr
 165 170 175

Phe Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys
 180 185 190

Asn Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly
 195 200 205

Thr Cys Val Cys Lys Pro Gly Phe Gly Gly Pro Asn Cys Glu His Gly
 210 215 220

Ala Phe Ser
 225

<210> 6
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 6

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
 1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
 20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
 35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
 50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
 65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
 85 90 95

Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala
 100 105 110

Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp Pro Leu
 115 120 125

Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn Cys Asn Pro Met
 130 135 140

Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly Thr Cys Val Cys Lys
 145 150 155 160

Pro Gly Phe Gly Gly Pro Asn Cys Glu His Gly Ala Phe Ser
 165 170

<210> 7
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 7

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
 1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
 20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
 35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
 50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
 65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
 85 90 95

Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala
 100 105 110

Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp Pro Leu
 115 120 125

Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn Cys Asn Pro Met
 130 135 140

Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly Thr Cys Val Cys Lys
 145 150 155 160

Pro Gly Phe Gly Gly Pro Asn Cys
 165

<210> 8
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 8

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
 1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
 20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
 35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
 50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
85 90 95

Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala
100 105 110

Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp Pro Leu
115 120 125

Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn Cys Asn Pro Met
130 135 140

Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly Thr
145 150 155

<210> 9
<211> 138
<212> PRT
<213> Homo sapiens

<400> 9

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
85 90 95

Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala
100 105 110

Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp Pro Leu
115 120 125

Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala
130 135

<210> 10
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 10

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
 1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
 20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
 35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
 50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
 65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
 85 90 95

Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala
 100 105 110

Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp Pro Leu
 115 120 125

Ala Pro Asn Pro Ala
 130

<210> 11
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 11

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
 1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
 20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
 35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
 50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
85 90 95

Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala
100 105 110

Gly Ile Tyr Cys
115

<210> 12
<211> 100
<212> PRT
<213> Homo sapiens

<400> 12

Asp Glu Asn Pro Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr
1 5 10 15

Asn Asp Pro His Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn
20 25 30

Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn
35 40 45

Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp
50 55 60

Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys
65 70 75 80

Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn
85 90 95

Cys Asp Arg Leu
100

<210> 13
<211> 141
<212> PRT
<213> Homo sapiens

<400> 13

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
20 25 30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 35 40 45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 65 70 75 80

Ile His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr
 85 90 95

Phe Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys
 100 105 110

Asn Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly
 115 120 125

Thr Cys Val Cys Lys Pro Gly Phe Gly Gly Pro Asn Cys
 130 135 140

<210> 14
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 14

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
 20 25 30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 35 40 45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 65 70 75 80

Ile His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr
 85 90 95

Phe Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys
 100 105 110

Asn Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly

115

120

125

Thr Cys Val Cys Lys Pro Gly Phe Gly Gly Pro Asn Cys
 130 135 140

<210> 15
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 15

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
 20 25 30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 35 40 45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 65 70 75 80

Ile His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr
 85 90 95

Phe Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys
 100 105 110

Asn Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly
 115 120 125

Thr

<210> 16
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 16

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
 20 25 30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly

35

40

45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 65 70 75 80

Ile His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr
 85 90 95

Phe Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala
 100 105 110

<210> 17
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 17

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
 20 25 30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 35 40 45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 65 70 75 80

Ile His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr
 85 90 95

Phe Gly Asp Pro Leu Ala Pro Asn Pro Ala
 100 105

<210> 18
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 18

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys

20

25

30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 35 40 45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys
 65 70 75 80

Ile His Asn Thr Ala Gly Ile Tyr Cys
 85

<210> 19
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 19

Cys Pro Cys His Asn Gly Phe Ser Cys Ser Val Ile Pro Glu Thr Glu
 1 5 10 15

Glu Val Val Cys Asn Asn Cys Pro Pro Gly Val Thr Gly Ala Arg Cys
 20 25 30

Glu Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly
 35 40 45

Pro Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro
 50 55 60

Ser Ala Ser Gly Asn Cys Asp Arg Leu
 65 70

<210> 20
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 20

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
 1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser
 20 25 30

Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile
 35 40 45

His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe

50

55

60

Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn
 65 70 75 80

Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly Thr
 85 90 95

Cys Val Cys Lys Pro Gly Phe Gly Gly Pro Asn Cys Glu His Gly Ala
 100 105 110

Phe Ser

<210> 21
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 21

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
 1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser
 20 25 30

Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile
 35 40 45

His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe
 50 55 60

Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn
 65 70 75 80

Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly Thr
 85 90 95

Cys Val Cys Lys Pro Gly Phe Gly Gly Pro Asn Cys
 100 105

<210> 22
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 22

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
 1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser

20

25

30

Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile
 35 40 45

His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe
 50 55 60

Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala Cys Asn
 65 70 75 80

Cys Asn Pro Met Gly Ser Glu Pro Val Gly Cys Arg Ser Asp Gly Thr
 85 90 95

<210> 23

<211> 78

<212> PRT

<213> Homo sapiens

<400> 23

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
 1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser
 20 25 30

Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile
 35 40 45

His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe
 50 55 60

Gly Asp Pro Leu Ala Pro Asn Pro Ala Asp Lys Cys Arg Ala
 65 70 75

<210> 24

<211> 73

<212> PRT

<213> Homo sapiens

<400> 24

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
 1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser
 20 25 30

Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile
 35 40 45

His Asn Thr Ala Gly Ile Tyr Cys Asp Gln Cys Lys Ala Gly Tyr Phe

50

55

60

Gly Asp Pro Leu Ala Pro Asn Pro Ala
65 70

<210> 25
<211> 56
<212> PRT
<213> Homo sapiens

<400> 25

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser
20 25 30

Ala Ser Gly Asn Cys Asp Arg Leu Thr Gly Arg Cys Leu Lys Cys Ile
35 40 45

His Asn Thr Ala Gly Ile Tyr Cys
50 55

<210> 26
<211> 40
<212> PRT
<213> Homo sapiens

<400> 26

Leu Cys Ala Asp Gly Tyr Phe Gly Asp Pro Phe Gly Glu His Gly Pro
1 5 10 15

Val Arg Pro Cys Gln Pro Cys Gln Cys Asn Ser Asn Val Asp Pro Ser
20 25 30

Ala Ser Gly Asn Cys Asp Arg Leu
35 40

<210> 27
<211> 177
<212> PRT
<213> Homo sapiens

<400> 27

Gln Phe Cys Gln Asp Cys Ala Ser Gly Tyr Lys Arg Asp Ser Ala Arg
1 5 10 15

Leu Gly Pro Phe Gly Thr Cys Ile Pro Cys Asn Cys Gln Gly Gly Gly
20 25 30

Ala Cys Asp Pro Asp Thr Gly Asp Cys Tyr Ser Gly Asp Glu Asn Pro
35 40 45

Asp Ile Glu Cys Ala Asp Cys Pro Ile Gly Phe Tyr Asn Asp Pro His
50 55 60

Asp Pro Arg Ser Cys Lys Pro Cys Pro Cys His Asn Gly Phe Ser Cys
65 70 75 80

Ser Val Ile Pro Glu Thr Glu Glu Val Val Cys Asn Asn Cys Pro Pro
85 90 95

Gly Val Thr Gly Ala Arg Cys Glu Leu Cys Ala Asp Gly Tyr Phe Gly
100 105 110

Asp Pro Phe Gly Glu His Gly Pro Val Arg Pro Cys Gln Pro Cys Gln
115 120 125

Cys Asn Ser Asn Val Asp Pro Ser Ala Ser Gly Asn Cys Asp Arg Leu
130 135 140

Thr Gly Arg Cys Leu Lys Cys Ile His Asn Thr Ala Gly Ile Tyr Cys
145 150 155 160

Asp Gln Cys Lys Ala Gly Tyr Phe Gly Asp Pro Leu Ala Pro Asn Pro
165 170 175

Ala